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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,764	04/02/2004	Ariel Peled	27655	9948

7590  
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03/13/2007

EXAMINER
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AHLUWALIA, NAVNEET K

ART UNIT	PAPER NUMBER
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2166

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/815,764

Applicant(s)

PELED ET AL.

Examiner

Navneet K. Ahluwalia

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40, 49-59, 61 and 62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40, 49-59, 61 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The application has been examined. Claims 1 – 40, 49 – 59, 61 and 62 are pending in this office action and claims 41 – 48 and 60 are cancelled in view of the elected group by applicant.

### ***Election/Restrictions***

2. Applicant's election without traverse of Group I claims 1 – 40, 49 – 59, 61 and 62 in the reply filed on 01/10/2007 is acknowledged.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 37 recites the limitation "said plurality of series" in line 1. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 38 recites the limitation "said plurality of series" in line 1. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 40 recites the limitation "said delimited segment was previously stored" in lines 1 – 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 – 40, 49 – 59, 61 and 62 rejected under 35 U.S.C. 102(e) as being anticipated by Zuk et al. ('Zuk' herein after) (US 2003/0154399 A1).

With respect to claim 1,

Zuk discloses a method for detecting an information item within an information sequence obtained from a digital medium, said information item comprising any one of a specified set of prestored information items, comprising: transforming each of said set of prestored information items into a respective representation, in accordance with a predetermined transformation format (paragraphs 0004 and 0009, Zuk); transforming said information sequence obtained from said digital medium, in accordance with said transformation format (paragraph 0010, Zuk); determining the presence of one or more of said prestored information items within said transformed information sequence, utilizing said respective representation (paragraphs 0024 – 0025, Zuk).

With respect to claim 2,

Zuk discloses a method according to claim 1, further comprising storing said representations in a database (Figure 2, Zuk).

With respect to claim 3,

Zuk discloses a method according to claim 1, further comprising sorting said representations into a sorted list (paragraph 0047 and Figure 2, Zuk).

With respect to claim 4,

Zuk discloses a method according to claim 3, wherein said sorting is in accordance with a tree sorting algorithm (paragraph 0047 and Figure 2, Zuk).

With respect to claim 5,

Zuk discloses a method according to claim 1, wherein said information item comprises a single word (paragraphs 0054 – 0055, Zuk).

With respect to claim 6,

Zuk discloses a method according to claim 1, wherein said information item comprises a sequence of words (paragraphs 0054 – 0055, Zuk).

With respect to claim 7,

Zuk discloses a method according to claim 1, wherein said information item comprises a delimited sequence of sub-items (paragraphs 0054 – 0055, Zuk).

With respect to claim 8,

Zuk discloses a method according to claim 7, wherein each of said sub-items comprises a sequence of alphanumeric characters (paragraphs 0054 – 0055, Zuk).

With respect to claim 9,

Zuk discloses a method according to claim 1, wherein a type of said information item comprises one of a group of types comprising: a word, a phrase, a number, a credit-card number, a social security number, a name, an address, an email address, and an account number (paragraphs 0054 – 0055, Zuk).

With respect to claim 10,

Zuk discloses a method according to claim 1, wherein said information sequence is provided over a digital traffic channel (Figure 2, Zuk).

With respect to claim 11,

Zuk discloses a method according to claim 10, wherein said digital traffic channel comprises one of a group of channels comprising: email, instant messaging, peer-to-peer network, fax, and a local area network (Figure 2, Zuk).

With respect to claim 12,

Zuk discloses a method according to claim 1, wherein said information sequence comprises the body of an email (paragraph 0035, Zuk).

With respect to claim 13,

Zuk discloses a method according to claim 1, wherein said information sequence comprises an email attachment (paragraphs 0035 and 0123, Zuk).

With respect to claim 14,

Zuk discloses a method according to claim 1, further comprising retrieving said information sequence from a digital storage medium (Figure 4, Zuk).

With respect to claim 15,

Zuk discloses a method according to claim 18, wherein said digital storage medium comprises a digital cache memory (Figure 4, Zuk).

With respect to claim 16,

Zuk discloses a method according to claim 1, wherein said representation depends only on the textual and numeric content of the information item (paragraphs 0054 – 0055, Zuk).

With respect to claim 17,

Zuk discloses a method according to claim 1, wherein said transforming comprises Unicode encoding (paragraphs 0054 – 0055, Zuk).

With respect to claim 18,

Zuk discloses a method according to claim 1, wherein said transforming comprises converting all characters to upper-case characters or to lower-case characters (paragraphs 0054 – 0055, Zuk).

With respect to claim 19,

Zuk discloses a method according to claim 1, wherein said transforming comprises encoding an information item into a numeric representation (paragraphs 0054 – 0055, Zuk).

With respect to claim 20,

Zuk discloses a method according to claim 1, further comprising applying a first hashing function to said representations (paragraph 0093, Zuk).

With respect to claim 21,

Zuk discloses a method according to claim 1, wherein said information sequence comprises sub-sequences (paragraphs 0054 – 0055, Zuk).

With respect to claim 22,



Zuk discloses a method according to claim 21, wherein said sub-sequences are separated by delimiters (paragraphs 0054 – 0055, Zuk).

With respect to claim 23,

Zuk discloses a method according to claim 22 wherein said sub-sequences separated by delimiters are any of: words; names, and numbers (paragraphs 0054 – 0055, Zuk).

With respect to claim 24,

Zuk discloses a method according to claim 23, further comprising scanning said information sequence to identify said sub-sequences (paragraphs 0054 – 0055, Zuk).

With respect to claim 25,

Zuk discloses a method according to claim 24, and said determining is performed by matching said information item to an ordered series of said sub-sequences (paragraphs 0054 – 0055, Zuk).

With respect to claim 26,

Zuk discloses a method according to claim 1, further comprising applying a policy upon the detection of said information item in said information sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 27,

Zuk discloses a method according to claim 26, wherein said policy is a security policy, said security policy comprises at least one of the following group of security policies: blocking said transmission, logging a record of said detection and detection details, and reporting said detection and detection details (paragraph 0117, Zuk).

With respect to claim 28,

Zuk discloses a method according to claim 26, wherein said information items are divided into sets, and wherein said security policy depends on the number of detected information items that belong to the same set (paragraphs 0117 – 0119, Zuk).

With respect to claim 29,

Zuk discloses a method according to claim 28 wherein each of said sets comprises information items associated with a single individual (paragraphs 0054 – 0055, Zuk).

With respect to claim 30,

Zuk discloses a method according to claim 1, wherein said information item comprises a sequence of sub-items (paragraphs 0054 – 0055, Zuk).

With respect to claim 31,

Zuk discloses a method according to claim 30, wherein said sub-items are separated by delimiters (paragraphs 0054 – 0055, Zuk).

With respect to claim 32,

Zuk discloses a method according to claim 30, wherein a sub-item comprises one of a group comprising: a word, a number, and a character string (paragraphs 0054 – 0055, Zuk).

With respect to claim 33,

Zuk discloses a method according to claim 30, wherein said determining comprises using a state machine operable to detect said sequence of delimited sub-items within said information sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 34,

Zuk discloses a method according to claim 30, wherein said transforming comprises: applying a first hashing function to assign a respective preliminary hash value to each sub-item within said information item and applying a second hashing function to assigning a global hash value to said information item based on said preliminary hash values of said sub-items (paragraphs 0093 – 0095, Zuk).

With respect to claim 35,

Zuk discloses a method according to claim 34, wherein said information sequence comprises sub-sequences, and wherein said determining comprises: applying said first hashing function to assign a respective preliminary hash value to each of said sub-sequences, applying said second hashing function to at least one of said preliminary hash values to assign a global hash value to said at least one of said sub-sequences and comparing said global hash value to hash values of said sub-sequences (paragraphs 0093 – 0095, Zuk).

With respect to claim 36,

Zuk discloses a method according to claim 35, wherein said sub-sequences comprise one of a group comprising: a word, a number, and a character string (paragraphs 0054 – 0055, Zuk).

With respect to claim 37,

Zuk discloses a method according to claim 35, wherein said plurality of series comprises a plurality of ordered combinations of sub-sequences within said data sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 38,

Zuk discloses a method according to claim 36, wherein said plurality of series comprises a plurality of combinations of sub-sequences within said data sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 39,

Zuk discloses a method according to claim 38, wherein said second hash function is invariant to reordering of at least two of said sub-sequences (paragraph 0092, Zuk).

With respect to claim 40,

Zuk discloses a method according to claim 39 further comprising checking whether said delimited segment was previously stored, and continuing said detection process only if the current delimited segment was previously stored (Figure 6, Zuk).

With respect to claim 49,

Zuk discloses an apparatus for detecting an information item within an information sequence, said information item being any one of a specified set of data items, comprising: a preprocessor, for transforming said information item into a representation, in accordance with a transformation format (paragraphs 0004 and 0009, Zuk); and a scanner, for scanning said information sequence to identify sub-sequences (paragraph 0010, Zuk); and a comparator associated with said preprocessor and said scanner, for comparing said representation to said sub-sequences to determine the presence of said specified information item within said information sequence (paragraphs 0024 – 0025, Zuk).

With respect to claim 50,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, further comprising a user interface for inputting said information items (paragraph 0117, Zuk).

With respect to claim 51,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said scanner is further operable to transform said information sequence in accordance with said transformation format (paragraphs 0024 – 0025, Zuk).

With respect to claim 52,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said scanner is further operable to transform said sub-sequences in accordance with said transformation format (paragraphs 0024 – 0025, Zuk).

With respect to claim 53,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, further comprising a database for storing a representation of each data item of said set (paragraphs 0054 – 0055, Zuk).

With respect to claim 54,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said information sequence is obtained from a digital medium (Figure 4, Zuk).

With respect to claim 55,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, further comprising a sorter, for forming a sorted list of the respective representations of set of data items (paragraph 0047 and Figure 2, Zuk).

With respect to claim 56,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein a type of said information item comprises one of a group of types comprising: a word, a phrase, a number, a credit-card number, a social security number, a name, an address, an email address, and an account number (paragraphs 0054 – 0055, Zuk).

With respect to claim 57,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said information sequence is

provided over a digital traffic channel (Figure 2, Zuk).

With respect to claim 58,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, further comprising retrieving said information sequence from a digital storage medium (Figure 2, Zuk).

With respect to claim 59,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 58, wherein said digital storage medium comprises digital storage medium within a proxy server (paragraphs 0016 – 0017, Zuk).

With respect to claim 61,

Zuk discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said encoding function comprises a hashing function (paragraph 0092, Zuk).

With respect to claim 62,

Zuk discloses a method according to claim 2, wherein said transforming said representation and storage of said information items comprises: a) assigning a hash value to each delimited segment within said information item (paragraphs 0004 and 0009, Zuk); b) assigning a hash value for said information item based on said hashes



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assigned to delimited segments within said information item (paragraphs 0092 – 0095, Zuk); c) storing said hash values evaluated in step a) and step b) above (paragraphs 0092 – 0095, Zuk); and wherein detecting said information items within said digital medium comprises: d) assigning a hash value to each delimited segment within said digital medium utilizing the same hash function used in step a) above (paragraphs 0093 – 0095, Zuk); e) assigning a hash value for sequences of delimited segments utilizing the same hash function used in step b) above, said sequences being of pluralities of possible numbers of delimited segments within said information items (paragraphs 0092 – 0094, Zuk); f) comparing the hashes values evaluated in step e) above with said hash values stored in step e) above (paragraphs 0092 – 0095, Zuk).

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet K. Ahluwalia whose telephone number is 571-272-5636.

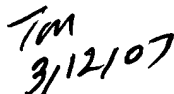
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam T. Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

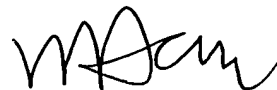
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Navneet K. Ahluwalia  
Examiner  
Art Unit 2166

Dated: 03/12/2007





**HOSAIN ALAM**  
SUPERVISORY PATENT EXAMINER